

10/584,975

1-13. (CANCELED)

14. (CURRENTLY AMENDED) A method of increasing readiness of a crossover gear shift in an automatic transmission, the method comprising the steps of:

attaining at least one of a snatch operation of the disengaging switching element and an increase of the transmission rotational speed gradient by:

providing issuing a crossover gear shift switching command to the transmission; ✓

transmitting a set transmission rotational speed and a set motor torque from a transmission controller to a motor controller;

actuating a motor fueling to increase fuel supplied to the engine and to increase motor output torque to the transmission immediately after issuing the crossover gear shift switching command depending upon one of the set transmission rotational speed and the set motor torque; wherein; and ✓

adjusting engagement and disengagement of transmission clutches are effected by an depending on the increase in fuel supplied to the engine or a resultant increase in the motor output torque to the transmission during the gear shift. ✓

15-20. (CANCELED)

21. (PREVIOUSLY PRESENTED) The method according to claim 14, further comprising the step of reducing pressure in the disengaging switching element, during the motor fueling, such that the opening of the disengaging switching element is accelerated.

22. (PREVIOUSLY PRESENTED) The method according to claim 14, further comprising the step of increasing pressure in the engaging switching element during the motor fueling.

23. (CANCELED)

24. (CURRENTLY AMENDED) A method for increasing a spontaneity of an overlapping shifting operation in an automatic transmission, with a command for motor firing fueling, being given either by a switch command or directly thereafter, at least one of a switching element, being disengaged, is forced open and a rotational speed gradient (turbine rotational speed) is increased by the motor firing fueling, the motor firing fueling occurring by setting either a rotational speed or a motor torque to be utilized by the automatic transmission, and the command for motor firing being given by a transmission controller, the method comprising the step of: ✓

carrying out the motor firing fueling up to a maximum attainable full-load characteristic curve by setting the rotational speed and the engine torque to be utilized by the automatic transmission as a function of a desired increase in spontaneity; and ✓

4/27/10 - 2:14 PM

- 2 -

10/584,975

monitoring opening of the switching element, which maintains the rotational speed at an old synchronous rotational speed, to prevent undesired transmission of an additional demand for motor fueling to an output, the opening of the switching element taking place up to a defined time after a start of the additional demand for motor fueling and, subsequently, setting a corresponding rotational speed gradient in a direction of a new synchronous rotational speed. ✓

25. (CANCELED)

26. (CURRENTLY AMENDED) The method according to claim [[25]] 24, further comprising the step of monitoring whether a rotational speed difference with respect to the new synchronous rotational speed reduces constantly and to a certain degree. ✓

27. (CURRENTLY AMENDED) The method according to claim [[25]] 24, further comprising the step of, after the new synchronizing rotational speed is attained, terminating continuation of the additional motor firing fueling beyond a certain duration of time if a further shifting operation is not initiated. ✓

28. (PREVIOUSLY PRESENTED) The method according to claim 24, further comprising the step of forming torque signals, for either different parts of the shifting operation or the switching element being disengaged and a switching element being engaged, differently in one of a motor controller or the transmission controller, and transmitting the formed torque signals to the other of the motor controller or the transmission controller.

29. (CURRENTLY AMENDED) The method according to claim 28, further comprising the step of foregoing ~~transfer of additional motor firing fueling which is actually carried out to the~~ to disengage the switching element being disengaged, in the control of for controlling the pressure for engagement of the switching element being engaged. ✓

30. (CURRENTLY AMENDED) The method according to claim 28, further comprising the step of either transferring additional motor firing fueling which is ~~actually carried out to the~~ for disengaging the switching element being engaged or considering the additional engine firing motor fueling which is actually carried out when for controlling pressure [[of]] for engaging the switching element being engaged. ✓

31. (CURRENTLY AMENDED) The method according to claim 24, further comprising the step of, in addition to the motor firing fueling, reducing a pressure at the switching element being disengaged in order to accelerate opening of the switching element. ✓

32. (CURRENTLY AMENDED) The method according to claim 24, further comprising the step of, in addition to the motor firing fueling, increasing a pressure at ✓

4/27/10 2:34 PM

- 3 -

10/584,975

the switching element being ~~disengaged~~ engaged In order to reduce interruption in acceleration at a drive output of the automatic transmission. ✓

33. (CURRENTLY AMENDED) The method according to claim 24, further comprising the step of, in addition to the motor firing fueling, increasing a pressure at a switching element being engaged. ✓

34. (CURRENTLY AMENDED) A method for increasing a spontaneity of an overlapping shifting operation in an automatic transmission, the method comprising the steps of;

issuing an overlapping switching command to a transmission controller;
transmitting a command from a transmission controller to a motor controller for ~~increased~~ increasing motor firing fueling directly after transmission of the overlapping switching command; ✓

setting a rotational speed and a motor torque as a function of a desired increase in spontaneity;

fueling the motor depending on either the set rotational speed or the set motor torque to be utilized by the automatic transmission;

firing fueling the motor up to a maximum attainable full-load characteristic curve; and ✓

at least one of forcing open a switching element being disengaged and increasing a rotational speed gradient (turbine rotational speed) by the fueling of the motor firing. ✓